

Section 1

MANAGEMENT OF CHANGE (MOC)

MOC No: 23791	Originator: Beaton, Daniel B.	Date Issued: 8/3/2011	Passport No: 338930	EWO No: N/A	ABU: RLOP	Plant: LNHF 13 Plant	Year: 2011
Section 2 Reviewer: Siebert, Matthew J.	MOC Category: Routine	PSM:	MOC Type: Permanent	Expiration Date:	Other Temporary Reason		
Project/Equipment Title: RLOP / MP-1301 / Raise High Temp Alarm and High High Temp Trip							
Description of Change: Summary: Raise high temp alarm from 255 F to 275 F and raise the high high temp trip from 266 F to 311 F. This change is executed at the relay in the switchgear, not in the DCS.							

~~MP 1301 is run continuously at 108% of rated current from time to time to meet operational needs. Running this motor above its nominal rating is causing increased heat in the motor. The current alarm point for motor winding temperature is set at 255 degrees F and the trip point is set at 266 degrees F. In order for the motor to trip it will take two of the RTD's to read above 266 degrees F, at this time it looks like only one RTD has reached above 266 degree F but the others have been close to it. The motor winding insulation is class F and rated for 311 F. Engineering and Reliability have advised Operations that continuously running this motor at 108% will cause a failure of the motor prematurely. Operations is taking steps to (1) buy a spare 1500HP motor and/or (2) purchase a larger~~

MOC will be required if the change will:

- ☐ Cause the use of different feed, chemicals or catalysts?
- ☒ Cause the use of different process conditions, process control, instrumentation, and protective devices or affect upstream/downstream plants?
- ☐ Cause the use of new or modified equipment [which is other than inkind]?
- ☐ Alter equipment siting, building, trailer locations, roads or fire protection?
- ☒ Require modifying existing and/or developing new procedures?

☒ Simultaneously Begin Construction and Start-up

Section 2

Stage 1	Pre-Implementation	Dept./Person Responsible	Date Complete	Completed By	References
	Design Review	Beaton, Daniel B.	8/3/2011	Beaton, Daniel B.	
	Process Engineering Review				
	Instrumentation Review	Lindgren, Clifford J.	8/3/2011	Lindgren, Clifford J.	
	Control System Review	Boughner, Keith B.	8/3/2011	Boughner, Keith B.	
	Utilities Review				
	Environmental/Regulatory Review	Tarter, Donald J.	8/3/2011	Tarter, Donald J.	
	Safety/Regulatory Review				
	Building Permits Review	Linares, Elena E.	8/3/2011	Linares, Elena E.	
	Mechanical Review				
	Inspection Review				
	Metallurgy Review				
	Construction Review				
	Leak Seal Review				
	Relief System Review				
	Infrastructure Review				
	PHA/HSE Review	Cabrera, Jaime	8/8/2011	Cabrera, Jaime	

Authorization to Implement Change (Begin Construction): Approver: Siebert, Matthew J. Date: 8/10/2011

Stage 2	Pre-Startup	Dept./Person Responsible	Date Complete	Completed By	References
	Procedures Review	Henrickson, Alan C.	11/2/2011	Henrickson, Alan C.	
	Communication/Training 1	Norris, Paul	9/27/2011	Norris, Paul	
	Pre Start-up Safety Review	Beaton, Daniel B.	12/9/2011	Beaton, Daniel B.	

Authorization to Start-Up Change: Approver: Siebert, Matthew J. Date: 12/15/2011

Extension of Temporary Change Approved By:	Approver:	Expiration Date:	Extension Reason
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Stage 3	Post-Startup	Dept./Person Responsible	Date Complete	Completed By	References
	Communication/Training				
	Process Safety Information	McCall, Patrick D.	#####	McCall, Patrick D.	

Change in Place - Reviews, Documentation & Testing Complete

Approver: Siebert, Matthew J. Date: 12/19/2011

MOC Cancelled:

Approver: Cancellation Reason: Date:

DESIGNS REVIEW CHECKLIST

You have been assigned a Design Engineering Review. This checklist is a guide to help ensure that all information necessary to evaluate the change is considered.

MOC Number 23791

Filing Reference

Person Responsible Beaton, Daniel B.

Completed by Beaton, Daniel B.

Date Completed 8/3/2011

Project/Equipment Description:

Summary: Raise high temp alarm from 255 F to 275 F and raise the high high temp trip from 266 F to 311 F. This change is executed at the relay in the switchgear, not in the DCS.

MP-1301 is runs continuously at 108% of rated current from time to time to meet operational needs. Running this motor above its nominal rating is causing increased heat in the motor. The current alarm point for motor winding temperature is set at 255 degrees F and the trip point is set at 266 degrees F. In order for the motor to trip it will take two of the RTD's to read above 266 degrees F, at this time it looks like only one RTD has reached above 266 degree F but the others have been close to it. The motor winding insulation is class F and rated for 311 F. Engineering and Reliability have advised

*When possible include copies of documents referenced in the summary.

DESIGNS REVIEW CHECKLIST

You have been assigned a Design Engineering Review. This checklist is a guide to help ensure that all information necessary to evaluate the change is considered.

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Filing Reference

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Date Completed 8/3/2011

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ENGINEERING REVIEW

- ☐ BIN Best Practic
- ☐ Civil & Structural
- ☐ Equipment Data Sheet
- ☐ Equipment Specification
- ☐ Fire Protection
- ☐ Hot Tap
- ☐ P&ID's Change due to New / Modified equipment
- ☐ P&ID's Change - Field condition not matching existing P&ID
- ☐ Plot Plan
- ☐ Seismic
- ☐ SIS Update
- ☐ Temporary Leak Repair

EQUIPMENT REVIEW

- | | |
|--|--|
| <input type="checkbox"/> Columns & Pressure Vessels | <input type="checkbox"/> Instrumentation |
| <input type="checkbox"/> Compressor, Blowers & Mechanical Equipment | <input type="checkbox"/> Insulation |
| <input type="checkbox"/> Concrete & Steel Structure, Walks and Stair | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Control Rooms & Building | <input type="checkbox"/> Piping |
| <input type="checkbox"/> Exchangers, Condensers, Heaters & Cooling Tower | <input type="checkbox"/> Pumps & Drivers |
| <input type="checkbox"/> Facilities & Siting | <input type="checkbox"/> Relief & Venting Systems |
| <input type="checkbox"/> Foundation | <input type="checkbox"/> Sewers, Roads & Miscellaneous |
| <input type="checkbox"/> Furnaces & Boilers | <input type="checkbox"/> Tanks |
| <input type="checkbox"/> Honeywell | <input type="checkbox"/> Update Refinery Relief Study |
| <input type="checkbox"/> Honeywell Process Simulator | <input type="checkbox"/> Utility Systems |
| <input type="checkbox"/> HVAC | |

SUMMARY OF REVIEW*

Existing RTD alarm and trip points are based on class B insulation. The motor has class F thus allowing the increased alarm and trip points of 275F and 311F respectively.

The 51 relay is set to pick up at 179% of FLA which is acceptable since the NEC allows a heat sensing element (our RTD alarm/trip unit) to be used as the overload device. Engineering reviewed bringing the pickup of the 51 relay down, but it would prevent the motor from starting.

Engineering / Reliability has advised Operations that running the motor continuously at 108% as they have been doing will prematurely kill the motor. Operations is planning to purchase a spare 1500HP motor and/or increase the HP of MP-1301/A."

*When possible include copies of documents referenced in the summary.

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DESIGNS REVIEW CHECKLIST

You have been assigned a Design Engineering Review. This checklist is a guide to help ensure that all information necessary to evaluate the change is considered.

MOC Number 23791

Filing Reference

Person Responsible Beaton, Daniel B.

Completed by Beaton, Daniel B.

Date Completed 8/3/2011

Project/Equipment Description:

Summary: Raise high temp alarm from 255 F to 275 F and raise the high high temp trip from 266 F to 311 F. This change is executed at the relay in the switchgear, not in the DCS.

MP-1301 is runs continuously at 108% of rated current from time to time to meet operational needs. Running this motor above its nominal rating is causing increased heat in the motor. The current alarm point for motor winding temperature is set at 255 degrees F and the trip point is set at 266 degrees F. In order for the motor to trip it will take two of the RTD's to read above 266 degrees F, at this time it looks like only one RTD has reached above 266 degree F but the others have been close to it. The motor winding insulation is class F and rated for 311 F. Engineering and Reliability have advised

□ IVAC

*When possible include copies of documents referenced in the summary.

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INSTRUMENTATION REVIEW CHECKLIST

You have been assigned a Instrumentation Review. This checklist is a guide to help ensure that all information necessary to evaluate the change is considered.

MOC Number 23791

Filing Reference

Person Responsible Lindgren, Clifford J.

Completed By Lindgren, Clifford J.

Date Completed 8/3/2011

Project/Equipment Description:

Summary: Raise high temp alarm from 255 F to 275 F and raise the high high temp trip from 266 F to 311 F. This change is executed at the relay in the switchgear, not in the DCS.

MP-1301 is runs continuously at 108% of rated current from time to time to meet operational needs. Running this motor above its nominal rating is causing increased heat in the motor. The current alarm point for motor winding temperature is set at 255 degrees F and the trip point is set at 266 degrees F. In order for the motor to trip it will take two of the RTD's to read

INSTRUMENTATION:

- ☐ Alarm Objective Analysis
- ☐ Analyzer Instruments
- ☐ Chevmon
- ☐ Control Valves
- ☐ DCS
- ☐ Egatrol
- ☐ Electrical One-lines
- ☒ Field Installation
- ☐ Flow Measurements
- ☐ Honeywell
- ☐ Honeywell Process Simulator
- ☐ Instrument Seals, Purges, and Winterizing
- ☐ Level Measurements
- ☐ Loop Diagrams
- ☐ P&ID Change due to New / Modified equipment
- ☐ P&ID's Change - Field condition not matching existing P&ID
- ☐ Pressure Measurements
- ☐ Process Alarms
- ☐ Process Control
- ☐ Relief Systems
- ☒ Shutdown Systems
- ☐ Temperature Measurements

SUMMARY OF REVIEW*

Current winding temperature RTD alarm and trip set points are set for a motor with class B rated insulation. MP-1301 has a class F insulation rating which allows for the higher temperature settings per NEMA and Chevron specs.

No issues with this change.

*When possible include copies of documents referenced in the summary.

Tuesday, January 29, 2013

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CONTROL SYSTEM REVIEW CHECKLIST

You have been assigned a Control System Review. This checklist is a guide to help ensure that all information necessary to evaluate the change is considered.

MOC Number 23791

Filing Reference

Person Responsible Boughner, Keith B.

Completed By Boughner, Keith B.

Date Completed 8/3/2011

Project/Equipment Description:

Summary: Raise high temp alarm from 255 F to 275 F and raise the high high temp trip from 266 F to 311 F. This change is executed at the relay in the switchgear, not in the DCS.

MP-1301 is runs continuously at 108% of rated current from time to time to meet operational needs. Running this motor above its nominal rating is causing increased heat in the motor. The current alarm point for motor winding temperature is set at 255 degrees F and the trip point is set at 266 degrees F. In order for the motor to trip it will take two of the RTD's to read

CONTROL SYSTEM:

- | | |
|---|---|
| <input type="checkbox"/> Alarm Objective Analysis | <input type="checkbox"/> Loop Diagrams |
| <input type="checkbox"/> Analyzer Instruments | <input type="checkbox"/> P&ID Change due to New / Modified equipment |
| <input type="checkbox"/> Chevron | <input type="checkbox"/> P&ID's Change - Field condition not matching existing P&ID |
| <input type="checkbox"/> Control Objectives Analysis | <input type="checkbox"/> Pressure Measurements |
| <input type="checkbox"/> Control Room Design | <input type="checkbox"/> Process Alarms |
| <input type="checkbox"/> Control Systems | <input type="checkbox"/> Process Control |
| <input type="checkbox"/> Control Valves | <input type="checkbox"/> Relief Systems |
| <input checked="" type="checkbox"/> DCS | <input type="checkbox"/> Shutdown Systems |
| <input type="checkbox"/> Egatrol | <input type="checkbox"/> System Design |
| <input type="checkbox"/> Electrical One-lines | <input type="checkbox"/> Temperatue Measurements |
| <input type="checkbox"/> Field Installation | |
| <input type="checkbox"/> Flow Measurements | |
| <input type="checkbox"/> Honeywell | |
| <input type="checkbox"/> Honeywell Process Simulator | |
| <input type="checkbox"/> Instrument Seals, Purges and Winterizing | |
| <input type="checkbox"/> Intrinsic Safety | |
| <input type="checkbox"/> Ladder Logic Diagrams | |
| <input type="checkbox"/> Level Measurements | |

SUMMARY OF REVIEW*

Motor winding high temp alarms can be raised to 275 F. There are no high high temp alarms configured in the DCS for the motor windings on P-1301. The configured high high motor winding trip configured in the field have not been captured in operations EOM document.

*When possible include copies of documents referenced in the summary.

ENVIRONMENTAL REGULATORY REVIEW CHECKLIST

You have been assigned a Regulatory Review. This checklist is a guide to help ensure that all information necessary to evaluate the change is considered.

Project/Equipment Title:

RLOP / MP-1301 / Raise High Temp Alarm and High High Temp Trip

MOC Number: 23791

Filing Reference:

Person Responsible: Tarter, Donald J.

Completed By: Tarter, Donald J.

Date Completed: 8/3/2011

Check that all Apply:

- ☐ **Chevron:**
- ☐ **Yellow Book**
- ☐ **Correction or Alternations to Refinery Utility System (RI-503)**
- CITY OF RICHMOND**
- ☐ **CEQA (EIR's, etc**
- ☐ **City of Richmond Conditional Use Permits (Land use and Hazardous Materials)**
- Regulatory**
- ☐ **BAAQMD Air Regulations Permits (including Title V)**
- ☐ **BAAQMD Air Regulations: Additions, modifications, or deletions of VOC Components/Equipment (reg. 8-18 LDAR Program - equipment leaks/fugitive emissions)**
- ☐ **BAAQMD Air Regulations: Wastewater System components - reg 8-8 and NSPS QQQ (process drains, catch basins, manholes, sumps, cleanouts, oil-water separators)**
- ☐ **BAAQMD Air Regulations: Storage Tanks**
- ☐ **BAAQMD Air Regulations: Internal Combustion Engines**
- ☐ **BAAQMD Air Regulations: Flares**
- ☐ **BAAQMD Air Regulations: Boiler, Steam Generators, Process Heaters & Gas Turbines**
- ☐ **BAAQMD Air Regulations: SRU, Tail gas, or H2S Unit Changes**
- ☐ **BAAQMD Air Regulations: Long Wharf (Marine Terminal)**
- ☐ **Department of Transportation (DOT)**

SUMMARY OF REVIEW*

No environmental regulatory issues.

*When possible include copies of documents referenced in the summary.

ENVIRONMENTAL REGULATORY REVIEW CHECKLIST

You have been assigned a Regulatory Review. This checklist is a guide to help ensure that all information necessary to evaluate the change is considered.

MOC Number: 23791

Filing Reference:

Person Responsible: Tarter, Donald J.

Completed By: Tarter, Donald J.

Date Completed: 8/3/2011

Project/Equipment Title:

RLOP / MP-1301 / Raise High Temp Alarm and High High Temp Trip

- ☐ EPA Benzene NESHAP (National Emissions Standards for Hazardous Air Pollutants) (process vents, storage tanks, wastewater systems, transfer operations, fugitive emissions)
 - ☐ EPA Benzene Waste Operations NESHAP (BWON)
 - ☐ EPA MACT (Maximum Achievable Control Technology) Standards and Subparts (process units, storage tanks, wastewater system, fugitive emissions)
 - ☐ EPA NSPS (New Source Performance Standards) and Subparts (storage tanks, flares, wastewater components, fugitive emissions, boilers, process heaters)
 - ☐ Chemical Inventory / Hazardous Materials Business Plan (e.g. New Chemicals:RI-313)
 - ☐ Risk Management and Prevention Plan (RMPP)
 - ☐ RWQCB Waste Discharge Orders, EPA Consent Agreement Sites
 - ☐ RWQCB NPDES Regulations/Permits
 - ☐ RWQCB SB-1050, Waste Discharge Requirements (WDR)
 - ☐ Spill Prevention Control and Counter Measures Plan (SPCC Plan)
 - ☐ Waste Regulations and Permit
 - ☐ Wharf and Shoreline Permitting related agencies (BCDC, Army Corps, SLC, USCG, OSPR, EPA)
 - ☐ Permit to Build and Remove Wells, County Permit Required
 - ☐ Activities impacting groundwater protection system (GPS) or WDO sites
- Yes No
- ☐ ☒ Any additions, modifications, or deletions of VOC Components/Equipment (including drains or wastewater components) that will change VOC identification/tag

*When possible include copies of documents referenced in the summary.

BUILDING PERMITS REVIEW CHECKLIST

You have been assigned a Regulatory Review. This checklist is a guide to help ensure that all information necessary to evaluate the change is considered.

Project/Equipment Title:

RLOP / MP-1301 / Raise High Temp Alarm and High High Temp Trip

MOC Number 23791

Filing Reference

Person Responsible Linares, Elena E.

Completed By Linares, Elena E.

Date Completed 8/3/2011

SUMMARY OF REVIEW*

MOC signed off. A City of Richmond building permit is not required based on the information provided in the scope of work, but is required for any new construction such as: electrical, instrumentation, pipe supports, structural modifications, and etc.

*When possible include copies of documents referenced in the summary.

INSPECTION REVIEW CHECKLIST

You have been assigned a Inspection Review. This checklist is a guide to help ensure that all information necessary to evaluate the change is considered.

MOC Number: 23791

Completed On: 8/3/2011

Completed By: Bosworth, Gregory A.

Person Responsible: Bosworth, Gregory A.

Project/Equipment Description:

Summary: Raise high temp alarm from 255 F to 275 F and raise the high high temp trip from 266 F to 311 F. This change is executed at the relay in the switchgear, not in the DCS.

MP-1301 is runs continuously at 108% of rated current from time to time to meet operational needs. Running this motor above its nominal rating is causing increased heat in the motor. The current alarm point for motor winding temperature is set at 255 degrees F and the trip point is set at 266 degrees F. In order for the motor to trip it will take two of the

Yes	No	Plant Protection/Security Review
<input type="checkbox"/>	<input checked="" type="checkbox"/>	City Fire-Plan Review is Mandato
<input type="checkbox"/>	<input checked="" type="checkbox"/>	City Fire-Permit is Mandato
<input type="checkbox"/>	<input checked="" type="checkbox"/>	City Acceptance Test is Mandato
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Office of Fire Prevention Review On

The scope of work has been reviewed by the Chevron Fire Marshal. Scope of work does not constitute a change in fire protection.

HEALTH & SAFETY EVALUATION

Date Issued: 8/3/2011

Maximo Number: 338930

MOC Number 23791

ABU: RLOP

EWO Number N/A

Filing Reference

Plant: LNHF 13 Plant

Person Responsible Cabrera, Jaime

Section 2 Reviewer: Siebert, Matthew J.

Completed By Cabrera, Jaime

Project/Equipment Title: RLOP / MP-1301 / Raise High Temp Alarm and High High Temp Trip

Date Completed 8/8/2011

Description: Summary: Raise high temp alarm from 255 F to 275 F and raise the high high temp trip from 266 F to 311 F. This change is executed at the relay in the switchgear, not in the DCS.

Step 1: ☐ Notify USW ☐ USW Representation Present USW Representative:

Worker's Committee Member/Steward's comments if unable to attend:

☐ Notify Trainer ☐ Trainer Representation Present Training Representative:

Step 2: Involve: Operations, Maintenance, Technical and others with appropriate expertise relevant to the change (CRTC, Contractors, etc)

Attendees: Cliff Lindgren, Jaime Cabrera, Lenny Harris, Ed Metcalf, Jimmy Than, Derrick Bell, Matt Siebert

Step 3: Think about the task at hand. Discuss the existing situation. Discuss the change. Discuss the impact of the change on the existing situation. Determine the training requirements for this change.

Step 4: Training Type: 1

Develop a list of concerns, consider your options, consider your following:

*H2S *NH3 *Acid *Caustic *Benzene *Fall Protection *Staging *Scott Air *PPE *Hot Work *Confined Space Entry *Evacuation Plan *Safety Operator

Concern	Consequence	Mitigation	Proceed Safely
High temperature trip is not displayed on the DCS because this trip is set at the relay in the field (i.e. does not come into the DCS)	CO6 cannot quickly see the trip point on the DCS	Add new trip point of 311F post Stage 1 completion	Yes

HSE Action Items

Owner	Action Item	Due Date	Complete	Declined	Notified
			<input type="checkbox"/>	<input type="checkbox"/>	

Additional Comments

MP-1301 was replaced in 2007 with a motor with a higher rated insulation (higher service factor). The alarm and trip settings were not adjusted.

PROCEDURE REVIEW CHECKLIST

You have been assigned a Procedure Review. This checklist is a guide to help ensure that all information necessary to evaluate the change is considered.

MOC Number 23791

Filing Reference

Person Responsible Henrickson, Alan C.

Completed By Henrickson, Alan C.

Date Completed 11/2/2011

Project/Equipment Description:

Summary: Raise high temp alarm from 255 F to 275 F and raise the high high temp trip from 266 F to 311 F. This change is executed at the relay in the switchgear, not in the DCS.

MP-1301 is runs continuously at 108% of rated current from time to time to meet operational needs. Running this motor above its nominal rating is causing increased heat in the motor. The current alarm point for motor winding temperature is set at 255 degrees F and the trip point is set at 266 degrees F. In order for the motor to trip it will take two of the RTD's to read

- ☐ Alarm Procedures
- ☐ Any Special or unique hazards
- ☐ COD/Ops Monitor
- ☐ Consequences of deviation
- ☐ Control measure to be taken if physical contact or airborne exposure occurs.
- ☐ Precautions necessary to prevent exposure, including administrative controls, engineering controls, and personnel protective equipment.
- ☐ properties of, and hazards presented by, the chemicals and operation of the process.
- ☐ References to additional procedures, such as Safe Work Practices
- ☐ Routine Duties
- ☐ Safety system and their functions
- ☐ Steps required to correct and/or avoid deviation

Steps fo each operatong Phase

- ☐ Emergency
- ☒ Normal
- ☐ Start-Up/Shutdown
- ☐ Temporary

SUMMARY OF REVIEW*

Added alarm information to LNHFCOD table (pg.25)and LNHFPE06 equipment descriptions (pg.27). See revision records for details.

*When possible include copies of documents referenced in the summary.

Stage Two Training and Communication Review

1/29/2013 10:10:54 AM

- ☒ Identify the affected employees.
- * Maintenance and Technical affected?
 - * Employee who will require training to start up the change based on the level of training.
 - * Employees who will receive training after the start up BUT before they can perform work affected by the change
- ☐ Procedures have been modified/written (Ops/SSO/Trainer)
- ☐ Identify the affected employees..
- * Lesson plan cover sheet (includes training objective statement and list of affected employees)
 - * Procedural changes (Standing Orders, mark-ups)
 - * Flow daigrams (final or mark-ups)
- ☐ Determine level of training
- ☐ Training has been scheduled
- ☐ Affected employees have been trained in order to start up the change.

MOC No: 23791

Date Completed: 9/27/2011

Completed By: Norris, Paul

Person Responsible: Norris, Paul

Project/Equipment Title:

RL0P / MP-1301 / Raise High Temp Alarm and High High Temp Trip

Summary of Review:

Existing RTD alarm and trip points are based on class B insulation. The motor has class F thus allowing the increased alarm and trip points of 275F and 311F respectively.

The 51 relay is set to pick up at 179% of FLA which is acceptable since the NEC allows a heat sensing element (our RTD alarm/trip unit) to be used as the overload device. Engineering reviewed bringing the pickup of the 51 relay down, but it would prevent the motor from starting.

Engineering / Reliability has advised Operations that running the motor continuously at 108% as they have been doing will prematurely kill the motor. Operations is planning to purchase a spare 1500HP motor and/or increase the HP of MP-1301/A."

APPENDIX III

PRE-START-UP SAFETY REVIEW CHECKLIST

You have been assigned a Pre Start-Up Safety Review. This checklist is a guide to help ensure that all information necessary to evaluate the change is considered.

Passport No: 338930

EWO No.: N/A

MOC PSSR.: 23791.001

MOC Number 23791

Filing Reference

Person Responsible Beaton, Daniel B.

Completed By Beaton, Daniel B.

Date Completed 12/9/2011

Project/Equipment Description:

RLOP / MP-1301 / Raise High Temp Alarm and High High Temp Trip

Subsystem:

NOT The PSSR facilitator shall involve employees with expertise in process operations, maintenance, and engineering, based upon their experience and understanding of the process system being evaluated.

The following requirements for PSSR shall be addressed:

1. Has the equipment and construction been completed in accordance with the critical design specifications?

Some examples of how this may be accomplished are:

- * Review of equipment quality assurance and inspection records.
- * Review of construction inspection records.
- * P & ID "check" after mechanical completion, and facility "walk-through" inspection.

Justification: Yes, relay settings have been changed and tested. No drawing updates required. Still need to understand why only one RTD wire going to relay. Cliff is working this.

Approved by:

Date

Beaton, Daniel B.

8/15/2011

2. Are Safety, operating, maintenance, and emergency procedures in place and adequate?

- * The phrase "in place and adequate" means: written, reviewed, approved, and accessible to employees requiring the procedures in their work.
- * This does not prevent the use of "mark-up" procedures to satisfy the requirement, but these must undergo the same review and approval and training interaction as would "the final version" of the same procedure and would require rigorous control.

Justification: yes

Metcalf, Edward L.

8/15/2011

3. Has the communication or training of affected operating, maintenance, or contract workers been completed?

- * Maintenance employees, contractors, and other employees whose work is affected by the change must be informed of the change and training in the impact on their job tasks before the changed equipment is started up.

Justification: yes

Norris, Paul

#####

4. Have the quality assurance goals of mechanical integrity been met?

- * Ensure that changes are suitable for the intended service.
- * Ensure that the quality of the work is acceptable.
- * Ensure that the quality of the Leak Seal is acceptable.

Justification: Yes, relay settings have been changed and tested.

Lindgren, Clifford J.

8/15/2011

5. Have all recommendations resulting from PHA's or HSE's been addressed or resolved

- * Ensure all Recommendations have been documented as addressed or resolved

Metcalf, Edward L.

8/15/2011

APPENDIX III

PRE-START-UP SAFETY REVIEW CHECKLIST

You have been assigned a Pre Start-Up Safety Review. This checklist is a guide to help ensure that all information necessary to evaluate the change is considered.

Passport No: 338930

EWO No.: N/A

MOC PSSR.: 23791.001

MOC Number 23791

Filing Reference

Person Responsible Beaton, Daniel B.

Completed By Beaton, Daniel B.

Date Completed 12/9/2011

Project/Equipment Description:

RLOP / MP-1301 / Raise High Temp Alarm and High High Temp Trip

Subsystem:

Justification: N/A

Are there any safety-related exceptions encountered during the PSSR that require follow-up after started up? ☐ Yes

Miscellaneous Comments:

Exception

Owner

*Completed
By*

*Completed
On*

Notified

PSI REVIEW CHECKLIST

MOC Number 23791

Filing Reference

Person Responsible McCall, Patrick D.

Completed By McCall, Patrick D.

Date Completed 12/15/2011

Project/Equipment Title:

RLOP / MP-1301 / Raise High Temp Alarm and High High Temp Trip

PSI Documents

SUMMARY OF REVIEW*

COD table and procedures have been updated and posted to the EOM.

*When possible include copies of documents referenced in the summary.

Tuesday, January 29, 2013

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